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On Certain Persian and Armenian Month-Names as Influenced by the Avesta Calendar.—By Dr. LOUIS H. GRAY,
Newark, N. J.

THE influence of the Zoroastrian calendar, as of Zoroastrianism itself, was far-reaching, extending not only to the Transoxian regions of Chorasmia and Sogdiana, but to Armenia and Cappadocia, even as the Iranian faith had spread. This is, indeed, no new discovery—it has been known at least since 1836, when Benfey and Stern, in their *Ueber die Monatsnamen einiger alter Völker, insbesondere der Perser, Cappadocier, Juden und Syrer*, 76–120, themselves following Reland's suggestion of exactly two centuries ago (*Dissertationes miscellaneæ*, ii. 129): “examinanda Tibi hæc Cappadocica mensium nomina, lector, exhibeo . . . in iis umbram mensium Persicorum mihi videor detexisse,” demonstrated that the Cappadocian month-names were borrowed, one and all, from the Zoroastrian calendar. Furthermore, Lagarde, in his *Gesammelte Abhandlungen*, 9, 163, and Hübschmann, in various rubrics of his *Armenische Grammatik*, i., have shown the dependence of certain Armenian month-names on the Avesta-Pahlavi system; while Sachau's translation of al-Biruni's *Chronology of Ancient Nations*, 52–53, 56–57, 82–83, 220–225, 384, 425–426, gives the names of the months and other calendrical data of the inhabitants of Chorasmia, Sogdiana, Seistan, Bukhārik (?), and Qubā. An additional list of Sogdian month-names is given in three fragments of the Turfan manuscripts published by F. W. K. Müller in his *Die “persischen” Kalendarausdrücke im chinesischen Tripitaka (Sitzungsberichte der königlich preussischen Akademie der Wissenschaften, 1907, 458–465)*. The Armenian month-names¹ are given in order by Dulaurier, in his *Récherches sur la chronologie arménienne*, 10–14, and the same scholar records not only the Armenian calendar based on the Julian system and dating probably from the period of Constantine the Great (pp. 37–38), as well as

¹ The study of Hagopian on the Armenian months in the Armenian periodical *Banasēr* for 1900 has unfortunately been inaccessible to me.

the month-names of Azaria of Julfa, who flourished early in the seventeenth century (pp. 115-117), but also an Albanian menology of uncertain date (p. 167). There seems to be, however, no discussion in which these scattered data are brought together and summarized, even Marquart, in his *Untersuchungen zur Geschichte von Iran*, ii. 198-201, 213-215, and Ginzel, in his section on the Persian calendar (*Handbuch der mathematischen und technischen Chronologie*, i. 275-309), omitting any detailed comparison. In like manner, neither Sachau, in his *Zur Geschichte und Chronologie von Khorāzmi* (*Sitzungsberichte der Wiener Akademie der Wissenschaften*, phil.-hist. Klasse, lxxiii. 471-506), nor Tomaschek, in his *Centralasiatische Studien*, i. *Sogdiana* (*ib.* lxxxvii. 67-184), discusses the calendar of these peoples. Indeed, so vague is our knowledge of the Transoxian language, and so meagre the remains, that any attempt to study the month-names must be largely a matter of conjecture and hypothesis. This difficulty is increased in the case of the Seistanian calendar, which may be Scythic (cf. Justi, in *Grundriss der iranischen Philologie*, ii. 489), and of the Bukhārik (?) and Qubān systems, both of which, like the Chorasmian and Sogdian, are Transoxian. It is at least clear, however, that the Chorasmian calendar was borrowed from the Avesta system before the invasion of Alexander the Great, and the Sogdian before the revolt of Diodotus in the third century B. C. (Marquart, ii. 201).

Contrariwise, the Zoroastrian calendar, or possibly some system akin to the Old Persian, may perhaps have been current in lands where Mohammedan chronology now rules. I allude particularly to the Baluchi and Afghan calendars. In Baluchistan the mode of reckoning time is entirely Islamitic (Mockler, *Grammar of the Baloochee Language*, 120), while in Afghanistan we find two systems of month-names. One of these, in frequent use along the eastern frontier between Afghanistan and India, is of Indian origin (Trumpp, *Grammar of the Pāṣtō*, 364-365), while the other is borrowed from the Mohammedan menology and is as follows (*ib.* 363-364):

<i>Afghan</i>	<i>Mohammedan</i>
Hasan Husain, “(the month of) Hasan and Husain”	Muharram
Safarah	Safar

Vṛunba'i Xōr, "First Sister"	Rabī' al-awwal
Dvayamah Xōr, "Second Sister"	Rabī' ath-thānī
Dreyamah Xōr, "Third Sister"	Jumād al-awwal
Calōramah Xōr, "Fourth Sister"	Jumād ath-thānī
Da Xudāe Miyāst, "Month of God"	Rajab
Da Šō Qadr Miyāst, "Month of the Night of	
Da Barāt Miyāst, "Power"	Ša'bān
Rōzah, ¹ "Fast"	Ramaḍān
Da Vṛūkai Axtar Miyāst, "Month of the	
Da Vārah Axtar Miyāst, ² "Lesser Fast"	Šawwāl
Miyāni Xāli Miyāst, ³ "Intermediate Month"	Dhu-l-Qa'dah
Da Lōe Axtar Miyāst, "Month of the Greater	
Fast"	Dhu-l-Hijjah

In the preparation of the article on the Persian calendar for Dr. James Hastings's forthcoming *Dictionary of Religion and Ethics*, my attention was directed to this problem the more since I had failed to evaluate it in my section on the same subject in the *Grundriss der iranischen Philologie*, ii. 675-678. While, in a sense, this present study is rather a summary and collocation of results previously attained by others than a presentment of independent researches, yet it has seemed to me that a collection of scattered data might, when combined, throw an increased light on the Avesta calendar itself; and in one or two points, minor though they be, I have perhaps succeeded in making some advance. It is also my pleasant duty to acknowledge with gratitude the generous assistance of M. A. Meillet, of the Collège de France, Paris, in his reply of March 3, 1907, to my queries concerning the Armenian month-names; to the Rev. Dr. Thomas P. Hughes, of Brooklyn, who on February 20, 1907, responded with equal kindness to my request for information concerning the names of the Afghan months; and to Messrs. N. Nazarian and S. Surenian, of New York, who most unselfishly and courteously aided an entire stranger in determining the meaning of the Armenian day-names.

¹ The translation of this and the four names following were kindly supplied me by the Rev. Dr. Thomas P. Hughes, the well-known Afghan scholar.

² These forms are also due to Dr. Hughes.

³ Between "the lesser fast" of 'Īd-al-fiṭr and the "greater fast" of 'Īd-aḍ-ḡuḡā'.

I. Fravartīn (March-April). None of the calendars affiliated with the Avesta-Pahlavi system show a month-name similar to this, which is transcribed *Φαροναρτης*, *Φαρβαρδιν*, and *Φαρφαρδιν* by Byzantine writers on the Iranian calendar,¹ although the nineteenth day of each month, which bears the same name in the Zoroastrian calendar, is termed *فروزن* in Sogdian and *روجن* in Chorasmian. The month is called, instead, simply "New Year," the appellation being borrowed from an Avesta **nava sarəda*, "new year" (Chorasmian *ناوسارچی*, Sogdian *نوسرن*, *ناوسردیج*, Bukhārīk (?) *نوسرد*, Armenian *Navasard*, Albanian *Navasardus*). The form of the name is of the more interest in that it represents an older form even than the Pahlavi (*sāl*, "year," cf. Persian *سال*), and may thus be compared with the Ossetic *sārde*, *sārdä*, *sārd*, *sard*, "summer" (Avesta *sarəda*, "year"; cf. Hübschmann, *Etymologie und Lautlehre der ossetischen Sprache*, 55; idem, *Armenische Grammatik*, i. 202; Horn, *Grundriss der neupersischen Etymologie*, 153; Salemann, in *Grundriss der iranischen Philologie*, i. a, 267). To the same stage of borrowing doubtless belongs the Talmudic *נוסרד* (WZKM. viii. 366), the term applied by the 'Abodah Zarah to a Persian festival (Levy, *Neuhebräisches und chaldäisches Wörterbuch*, iii. 389), as well as the *νέον σάρδιν τὸ νέον ἔτος* of Johannes Lydus xxxix. 13. The Avesta-Pahlavi form, however, is represented in the Cappadocian calendar by *Ἀραιστην* and its variants (Benfey and Stern, *Ueber die Monatsnamen einiger alter Völker*, 85-89; otherwise, Marquart, i. 63). The Seistanian calendar calls the first month *کوان*, which may possibly be in honor of the Kavāta of the Avesta (Yasht xiii. 132; xix. 71), the legendary founder of the Kayanian Dynasty (Justi, *Iranisches Namenbuch*, 159), whose home was in Seistan (Yasht xix. 65 sqq.; cf. Geiger, *Ostiranische Kultur*, 99-100, 108, 411). The calendar of Azaria of Julfa calls the first

¹ On these references see Gray, *Byzantinische Zeitschrift*, xi. 468-472, and the same writer's article in *Avesta, Pahlavi, and Ancient Persian Studies in Honour of . . . Sanjana*, 167-175, together with the citations there given.

² "Perhaps the word bears some relation to *سار*, i. e. Bukhārā," Sachau, 393; otherwise, but less plausibly, Marquart, ii. 199.

month *Šams*, a loan-word from the Arabic شمس, "sun," but the Qubān' حلو is unclear to me.

II. Artavahišt (April-May). This is represented as a month-name only by the Chorasmian اردوست and the Cappadocian 'Apuora and its variants (Benfey and Stern, 89-92), although as the name of the third day of each month it finds equivalents in the Chorasmian اردوشت (variant اردوست) and in the Sogdian ارداخوشت. The Greek writers transcribe the name by 'Αρτιπεςστ, 'Αρτιπεςστ, 'Αρδεμπεςστι, and 'Αρδεμπας. The Bukhārīk (?) name فدای نوسرد apparently represents an Avesta *paiti-nava-sarāda, "after the new year," but the Sogdian (خوورژنيج, خوورزن, حوجن, حرحن) variants جرجن, like the Seistanian رهو, is unclear. The Armenian calendar likewise diverges from the Avesta, the corresponding month of its system being named *Hoři*, "second month," a derivative of the Georgian *ori*, "two,"² while Azaria of Julfa calls this month *Adam* in honor of the father of the human race. In Albanian the second month was termed *Tulën*, which, if the Armenian *t* was pronounced *d* at the time of the formation of the Albanian calendar, bears a strong, though perhaps fortuitous, resemblance to the Albanian *dëtnë*, "juniper" (Meyer, *Etymologisches Wörterbuch der albanesischen Sprache*, 65). The Qubān اوین is unclear to me.

III. Horvadaṭ (May-June). This month, which is transcribed *Xoprat* in Greek, is very accurately represented by the Chorasmian هرودان, while the sixth day of each month, which bears the same name in the Avesta-Pahlavi system, is given in Chorasmian, in like manner, by هرودان and in Sogdian by ردد. The Cappadocian equivalent is 'Apuorata and its variants (Benfey and Stern, 92-94). The Sogdian نيسن (variants نيسنج, نيسنيم) is clearly the Assyrian *Nisannu*,

¹ "Kubā was the second largest town of Farghāna, not far from Shāsh," Sachau, 393.

² My thanks for this identification are due to M. Meillet. On the general problem of Caucasian loan-words in Armenian, cf. Hübschmann, *Armenische Grammatik*, i. 396-398.

Hebrew נִסָּן (April-May), the divergency of time being doubtless due to retrogression of the calendar at the time when the Sogdians adopted this month-name. The Bukhārik (?) سافول, Qubān حش (doubtfully compared by Marquart, ii. 200, with the twelfth Old Turkish month جقشاباط), Seistanian اوسال, and Albanian *Namogn*, are unclear to me. The Armenian *Sahmī*, however, denotes simply "third month," being derived from the Georgian *sami*, "three," while Azaria of Julfa's *Šbat* is simply the Hebrew שְׁבַת.

IV. Tīr (June-July). The month Tīr, transcribed Τύρμα, Τούρμα in Greek, is represented in the Chorasmian calendar by جیری,¹ while for the day of the same name, the thirteenth of each month, the Chorasmian and Sogdian systems have جبزی (read, with the variant, جیری) and تیش respectively. The Sogdian month-name corresponding to Tīr is بساکنج (بساک, . . . ذنا). This word may possibly be identical with the Persian بساک, "garland of flowers." The Seistanian تیرکیانوا, like the Armenian *Trē* (Lagarde, *Gesammelte Abhandlungen*, 9) and the Cappadocian Τειρε and its variants (Benfey and Stern, 94-95), is clearly derived from the Pahlavi Tīr. The Albanian name of the fourth month, Yllz, may possibly be a translation of the old Iranian term, if it may be connected with the Albanian *yl*, *il*, "star" (Meyer, 460). The Bukhārik (?) سافت, Qubān لولیا, and Azaria of Julfa's *Nasai* are unclear to me. The name Tīr has been borrowed as a planet-name, it is interesting to note, in the Chinese (Cantonese pronunciation) *Tīt*.

¹ Here again my thanks are due to M. Meillet.

² On the confusion of Tištrya, the dog-star, with his original opponent Tīr, Mercury, cf. Spiegel's translation of the Avesta, iii. introd. 21-23; Darmesteter, *Le Zend Avesta*, ii. 411-413; Nöldeke, *Persische Studien*, i. 33-36; Justi, *Iranisches Namenbuch*, 325; and Bartholomae, *Altiranisches Wörterbuch*, 652, and the references there given. On Chorasmian *j* for an original Iranian *t*, cf. Nöldeke, *loc. cit.* As Indian parallels may be cited such forms as Prakrit *ciṭṭhañ*, Uriya *cidā* = Sanskrit *tiṣṭhāti*, "stands" (Pischel, *Grammatik der Prākṛit-Sprachen*, § 216; Gray, *Indo-Iranian Phonology*, § 223).

V. Amerōdat (July-August). The Zoroastrian month Amerōdat, transcribed *Meptar* in Greek, is represented by the Chorasmian همداد (variant همدان), while for the seventh day of each month, which bears the same name, the Chorasmian and Sogdian calendars have همدان and مردد respectively. The Cappadocian equivalent is *Ἀμαρτορ* and its variants (Benfey and Stern, 95-97), while the corresponding Armenian month is *K'adoç*, "(the month) of crops," a derivative of *k'adel*, "to gather" (Dulaurier, *Recherches sur la chronologie arménienne*, 12). As M. Meillet kindly informs me, "it is true that, at the period of the origin of the Armenian era, it corresponded to the month of November, but the name existed previously and was in use in an earlier system." Azaria of Julfa's name for the fifth month, *Gamar*, is merely a loan-word from the Arabic قمر, "moon." The Sogdian اشناخندا (variants اشناخنداه, اشناخندا, شناختیج), Seistanian سرینوا (read سرینوا by Marquart, ii. 199), Bukhārīk (?) اوریس, and Albanian *Bokacoh*, the corresponding names of the fifth month, are unclear to me. The Qubān لبر is merely the East Turkish name of the same month.

VI. Šatvaīrō (August-September). To the name of this month, which is transcribed *Σαχτιουρ* and *Σαρεβυρ* in Greek, corresponds the Chorasmian اخشیری, the homonymous day, the fourth of each month, being termed اخشیری in Chorasmian and خستشور in Sogdian. The Cappadocian derivative from the Zoroastrian month-name is *Ξαυθηρι* and its variants (Benfey and Stern, 97-101). The Sogdian name of the month, given by al-Biruni as مژیکندا (variants مرخندا, مریکندا, مریکندا), is shown by the Turfan خزانج (variant غزانج) to have been "autumn month"; and to have been equivalent to خزان (October), the eighth month in the short-lived calendar introduced by Yazdagird III. (Hyde, *Historia Religionis Veterum Persarum*, 197). The other names of the sixth month, Seistanian مریزوا (read مریفوا by Marquart, ii. 199), Bukhārīk (?) یسن, Qubān نر, Armenian *Araç*, Azaria of Julfa's *Nadar*, and Albanian *Murē*, are unclear to me.

VII. Mitrō (September-October). This month-name, transcribed in Greek *Μεχρμα* and *Μεχρ*, is represented in the Persian calendars, curiously enough, only by the Qubān مهر, the Chorasmian and Sogdian equivalents being *او مری* and *فغاز* (variants *نغان*, *نغان*, *نغان*, *نغان*) respectively. The former is of unknown signification to me. But the latter, reflected by the Chorasmian *فیع*, the name of the sixteenth day of each month, is shown by the Turfan form *بفگانم* to signify "god-month" (on *f* as a dialectic Persian development of *b*, see below, under IX.; and on *baga*, *baya*=*Mithra*, see Marquart, i. 64; ii. 129, 132-134). The name Mitrō is represented in Cappadocian by *Μιθρι* and its variants (Benfey and Stern, 101-102) and in the Armenian calendar by *Mehekan* (Hübschmann, 194; Lagarde, 9), while Azaria of Julfa represents it by *T'ir*, i. e., Tīr (see above, under IV.), the discrepancy being due, perhaps, to the retrogression of the calendar. The remaining names of the seventh month, Seistanian *مزور*, Bukhārik (?) *سک*, and Albanian *Bdekuē*, are unclear to me. The Iranian Mihr appears as a borrowed planet-name in the Chinese (Cantonese pronunciation) *Mit*. It is likewise the name of the eighth day of each month in the Armenian calendar.

VIII. Āvān (October-November). This month, transcribed 'Απav and 'Απavμα in Greek, is exactly represented by the Sogdian *ابانج* (variants *البانج*, *بانج*), although its name for the corresponding day of each month, the tenth, is *انجن*. The Chorasmian month-name is *ياناخن*, which was also applied to Āvān as the tenth day of each month, but I am not certain of its meaning. It is probable, however, that it is synonymous with the corresponding Old Persian month Ādukani, "(month of) canal-digging" (cf. Marquart, ii. 198). In Cappadocian the form of Āvān is 'Απομεva and its variants (Benfey and Stern, 102-108), while in Armenian the eighth month is the "sun-month," *Areg* (Hübschmann, 424). The other month-names, Seistanian *هرانوا*, Bukhārik (?) *جدل* (which can scarcely be the Arabic *جدل*, "battle," "altercation"), Qubān *الما*, Albanian *Carulē* (unless possibly connected with Albanian *gak*, "blood," "vendetta," "death" [cf. Meyer, 136]), and Azaria

of Julfa's *Dam*, are unclear to me. It might indeed be suggested that the latter name is the Persian دم "breath," "wind," and that it was adopted in allusion of the change of the monsoon from the northeast to the southwest at this season of the year; but the uncertainty of the entire problem, and Julfa's inland situation, near Isfahan, render such an explanation very hazardous.

IX. Ātarō (November-December). The Chorasmian name of this month, transcribed 'Aḏap, 'Aḏep, 'Aḏepma in Greek, is ارو (read ادو, variants اری, ادو), and the ninth day of each month, which bears the same name in the Zoroastrian calendar, is called ارو (read ادو) in Chorasmian and اتس in Sogdian. The Sogdian name of the ninth month is فوغ (Turfan form بوغیم), a dialectic form corresponding to Avesta *baya*, Old Persian *baga*, "god," represented in New Persian by the Ferghanish فغ, "idol" (Horn, in *Grundriss der iranischen Philologie*, i. b, 78). The Cappadocian equivalent is 'Aθpa and its variants (Benfey and Stern, 108-109), while the Armenian name of the ninth month, *Ahekan*, is likewise derived from the Avesta-Pahlavi appellation (Hübschmann, 95; Lagarde, 9). Azaria of Julfa's name, *Hamir*, is the Arabic امیر, but the Seistanian ارکیازوا (unless read, with Marquart, i. 64; ii. 199, ارکیانوا, "month of fire-times"), the Bukhārīk (?) هیات, the Qubān برا, and the Albanian *Bondokē*, are unclear to me.

X. Dīn (December-January). This month-name, transcribed Δημα and Νται (ντ=δ, as in Modern Greek) in Greek, represents the Avesta *daδuδō*, "(month) of the Creator" (Gray, in *Grundriss der iranischen Philologie*, ii. 677, and the references there given), and is, therefore, equivalent to Pahlavi *Aūharmazd* and Avesta *Ahura Mazda*. It is, accordingly, accurately represented by the Chorasmian ریمژد (variant ریمزد), while the first day of each month, *Aūharmazd* in the Zoroastrian calendar (corresponding to *Aramazd*, the fifteenth day of each Armenian month), is called ریمژد in Chorasmian and خرمرژد in Sogdian, and is borrowed in the Chinese planet-name *Wun-mut-si* (Cantonese pronunciation). The eighth, fifteenth, and twenty-third days of each month, termed *Dīn pa Ātarō*, *Dīn pa Mitrō*, and

Dīn pa Dīn in Pahlavi, are called *دڼو* and *دست* in Chorasmian and Sogdian respectively; and the Iranian name is also closely followed by the Cappadocian *Δαθουσα* and its variants (Benfey and Stern, 109–110). The Sogdian name for the tenth month is *ميسافوغ* (variants *مسانوغ*, *مرسافوغ*, *میش بوغیج*), “great god,” the fitting appellative of Ormazd, especially as his month comes after that of *Ātarō*, of whom he is, in Avesta mythology, the father (cf. Yasna xxxvi. 3; lxv. 12; Siroza i. 9; ii. 9; Yasht xix. 46, 49; Gah i. 9).¹ The word *فوغ* has already been discussed. The term *مسا* is to be equated with Avesta, Pahlavi, *Gabrī mas*, “great,” *Nāyīnī mes*, *Samnānī mesūn* (Horn, in *Grundriss der iranischen Philologie*, i. b. 17; for another interpretation, see Marquart, ii. 198–199). The *Bukhārīk* (?) *سیون* is apparently the Hebrew *יָסוּן*, the ninth month, calendrical retrogression again playing a part. The *Aram* of Azaria of Julfa is merely the name of the eponymous hero of Armenia. The Seistanian *کریشت*, *Qubān* *فعاء*, and Albanian *Orelī* are unclear to me; while the Armenian *Marēr* (for **Marear*) has been equated with the Avesta *Maīdyāīrya*, “mid-year” (Marquart, ii. 205).

XI. *Vohūman* (January-February). This month-name, transcribed *Πεχμαν* and *Μπαχμαν* ($\mu\pi=\beta$, as in Modern Greek) in Greek, seems to find its equivalent only in the Chorasmian *اشمین* (variants *ارسمین*, *اخمن*) and in the Cappadocian *Ὀσμαν* and its variants (Benfey and Stern, 110–113; Marquart, ii. 215); while the Sogdian has *ژیمدا* (variants *ژیمدنچ*, *ریمد*, *ریمد*, *ژیمتیج*, *ژیمتیج*), whose meaning is unknown to me. Moreover, the corresponding day of each month, the second, is represented in Chorasmian and Sogdian by *ازمین* and *جهینر* respectively. Equally uncertain are the *Bukhārīk* (?) *جسند*, *Qubān* *بن*, Albanian *Exna* and Azaria of Julfa's *Ordan*. The Seistanian *کرسن*, on the other hand, seems to represent the Karsna

¹ Cf. the Old Persian sequence of the months *Āšiyādiya*, “worship of fire,” and *Anāmaka*, “nameless,” (*i. e.* sacred to the ineffable *Aura-mazda*).

of Yasht xiii. 106, 108, who may possibly have been the eponymous hero of the Qāren dynasty, which played a prominent part in the Arsacid and Sassanid periods (Darmesteter, *Le Zend-Avesta*, ii. 536, note 212); while the Armenian name of the eleventh month, *margaç*, seems to mean "(month) of meadows," although Marquart, i. 64, dissents from this etymology, considering it a loan-word from the Old Persian month-name (preserved only in the New Susian text, Bh. iii. 43, under the form *Mar-kazanaš*) *Margazana*, "brood of birds." The Sogdian form of Vohūman was *Vunxān*, preserved also in the Chinese loan-name of the planet Mars, *Wen-Hou* (Cantonese pronunciation).

XII. Spendarmat (February-March). The name of the twelfth month, transcribed 'Ασφανδαρηματ, 'Ασφανταρηματ, 'Ασφανταρ, and Αἰφανταρ in Greek, is represented by اسبندارجی in Chorasmian, while the fifth day of each month, which bears the same name in the Zoroastrian calendar, appears in Chorasmian as اسبندارجی, and as سبندارمذ in Sogdian. The Sogdian *خشوم* (variants *خشوم*, *خشوص*, *خشوميچ*) is very uncertain in meaning, although it is plainly traceable in the full Chorasmian name for this month اسبندارجی فوخشوم. We know that "on the last day of this month the Sughdians cry over those who died in past times, they lament over them and cut their faces. They lay out for them dishes and food, as the Persians do in Farwardajān. For the five days, which are the *ἡμέραι κλοπιμαῖαι* to the Sughdians, they fix at the end of this month" (al-Biruni, *Chronology of Ancient Nations*, tr. Sachau, 222; cf. 57). Hazardous though it be to operate with such scanty material, it may be suggested that in *خشوم*, if it be an abbreviation of *فوخشوم*, we may possibly have a derivative of the Sogdian and Chorasmian verb corresponding to the Modern Persian *بخشودن*, "forgive" (for Sogdian *f*=Modern Persian *b*, see above, under IX.) and to the Judæo-Persian *בִּוּשְׁאִיד* (cf. Horn, *Grundriss der neupersischen Etymologie*, 43). The Cappadocian equivalent of Spendarmat is *Σονδαπα* and its variants (Benfey and Stern, 113-115), while the Armenian name of the corresponding month is *Hrotic*, a loan-word from the Pahlavi **fravartakān*, "the (five epagomenal days) dedi-

cated to the Fravašis" (Hübschmann, 184-185; Lagarde, 163).¹ The Seistanian سارو (unless it be the Modern Persian سارو, "starling"), Bukhārīk (?) دریمنکان, Qubān اوناہ, Azaria of Julfa's *Nirhan*, and Albanian *Barneai* are unclear to me.²

The names of the days in the Chorasmian and Sogdian calendars show many instances of borrowing from the corresponding day-names of the Zoroastrian system. Though the list of the Chorasmian and Sogdian names of the days may conveniently be found both in Sachau's translation of al-Biruni's *Chronology of Ancient Nations*, 56-57 and in Ginzel's *Handbuch der mathematischen und technischen Chronologie*, i. 307-308, the following list of day-names, restricted to appellations borrowed directly from the Zoroastrian calendar, may be found of use:

1. Pahlavi Aūharmazd = Chorasmian ریمژد, Sogdian خرمژد;
3. Pahlavi Artavahišt = Chorasmian اردوشت, Sogdian ارداخوشت;
4. Pahlavi Šatvaīrō = Chorasmian اشتریوری, Sogdian خستشور;
5. Pahlavi Spendarmaṭ = Chorasmian اسپندارجی, Sogdian سیندارمژد;
6. Pahlavi Horvadaṭ = Chorasmian هرودان, Sogdian رد (?);
7. Pahlavi Amerōdaṭ = Chorasmian همدان, Sogdian مردد;
- 8, 15, 23. Pahlavi Dīn (pa Ātarō; pa Mitrō; pa Dīn) = Chorasmian دذو, Sogdian دست (see above, under X.);
9. Pahlavi Ātarō = Chorasmian ارو (read ادو), Sogdian اتس;
11. Pahlavi Xūrsēt = Chorasmian اخیر, Sogdian خویبر;
12. Pahlavi Māh = Chorasmian ماه, Sogdian ماخ;
13. Pahlavi Tīr = Chorasmian جیزی, Sogdian تیش;
14. Pahlavi Gōš = Chorasmian غوشت, Sogdian غش;
17. Pahlavi Srōš =

¹ This suggests a still more daring tentative explanation of the Sogdian خشوم than the one very timidly ventured above, namely, that it represents a derivative of Avesta *xšvaš*, "six," *xštūm*, "for the sixth time," as the five epagomenal days plus the last day of the twelfth month for the connecting link. Marquart, ii. 198, however, connects the name with the Avesta *xšnaoma* "contentment."

² Allusion may be made in this connection to the names of months and days substituted by Yazdagird III. for the old religious appellations. The list may conveniently be found in Hyde, 195-200, with full elucidation, and is, therefore, omitted here.

Chorasmian اسرور (? read اسروش), Sogdian سرش; 18. Pahlavi Rašnū=Chorasmian رشن, Sogdian رسن; 19. Pahlavi Fravartīn=Sogdian فروذ (? cf. Hübschmann, 185); 21. Pahlavi Rām=Chorasmian رام, Sogdian رامن; 22. Pahlavi Vāt=Chorasmian and Sogdian وان; 24. Pahlavi Dīn=Chorasmian دینی, Sogdian دین; 25. Pahlavi Art=Chorasmian ارجوی (Nöldeke 34), Sogdian ارذخ; 26. Pahlavi Āstāt=Chorasmian اشتاد, Sogdian استان; 27. Pahlavi Āsmān=Chorasmian اسمان, Sogdian سمن; 28. Pahlavi Zamyāt=Sogdian زامجید (read زامجید); and 29. Pahlavi Māraspānd=Chorasmian مرسپند.

The names of the remaining Chorasmian and Sogdian days are too uncertain in meaning for discussion here; and in like manner, the Sogdian names of the five epagomenal days (al-Biruni, 57) and the Chorasmian names of the six *gāhambārs*, or festivals in the course of the year (al-Biruni, 225, cf. 425-426; and Roth, ZDMG. xxxiv. 716-717, even when compared with their Zoroastrian equivalents, require a deeper investigation, and probably a far greater knowledge of the living dialects of these regions than we at present possess.

Like the Avesta, Chorasmian, and Sogdian calendars, the Armenians also named the days of their months, instead of numbering them, as among the ancient Persians (cf., on the possible adoption of the Avesta system of day-names by the Achæmenians, West, *Sacred Books of the East*, xlvii. introd., pp. 44, and *Academy*, xlix. 348; Marquart, ii. 210-211). Although Christian and geographical appellations are found among them, Zoroastrian influence is evident in at least five names: *Mīhr*, the eighth day (corresponding to *Mitrō*, the seventh month and sixteenth day of each month in the Zoroastrian calendar); *Aramazd*, the fifteenth day (corresponding to *Aharmazd*, the first day of each month, and to *Dīn*, the tenth month and twenty-fourth day of each month in the Zoroastrian calendar); *Anahit*, the nineteenth day (corresponding to the well-known goddess Anāhita of the Avesta); *Npat*, the twenty-sixth day (corresponding to the Indo-Iranian water-deity Apām Napāt, but confused with the name of a mountain in Armenia, cf. Spiegel, *Iranische Alterthumskunde*, i. 173, ii. 54); and

Vahagn, the twenty-seventh day (corresponding to *Vahrām*, the twentieth day of each month in the Zoroastrian calendar).

The list of the Armenian day-names, which seems to be little known, is given as follows in Alishan's Armenian "Ancient Faith of the Armenians," 143-144, together with the supplementary translation of some of the terms furnished me by the courtesy of Messrs. Nazarian and Surenian: 1. *Areg* ("sun," corresponding in name to the eighth Armenian month and the eleventh Avesta day); 2. *Hrand* ("earth mixed with fire"); 3. *Aram* (identical with the name of the tenth month of Azaria of Julfa); 4. *Margar* ("prophet," i. e., St. Sylvanus; cf. Acts, xv. 32); 5. *Ahrank'* ("half-burned"); 6. *Mazde* or *Mazt'et*; 7. *Astlik* ("Venus"); 8. *Mihr* ("Mithra"); 9. *Jopaber* or *Xrovaber* ("tumultuous"); 10. *Murç* ("triumph"); 11. *Erezhan* or *Erezkan* ("hermit"); 12. *Ani* (name of an ancient fortified city of Armenia); 13. *Parxar*; 14. *Vanat* ("host, refectory of a monastery"); 15. *Aramazd* ("Ahura Mazda"); 16. *Mani* ("beginning"); 17. *Asak* ("beginningless"); 18. *Masis* (the Armenian name of Mount Ararat); 19. *Anahit* ("Anāhita"); 20. *Aragac* (name of a mountain in Armenia); 21. *Gorgor* or *Grgur* (name of a mountain in Armenia); 22. *Kordi* or *Korduik'* (a district in ancient Armenia regarded as the original home of the Kurds); 23. *Omak* ("east wind" or "cool places in forests"); 24. *Lusnak* ("half-moon"); 25. *Çrōn* or *Sp'iur* ("dispersion"); 26. *Npat* ("Apām Napāt"); 27. *Vahagn* ("Vahrām"); 28. *Sēin* ("mountain"); 29. *Varag* (name of a mountain in Armenia); 30. *Gišeravar* ("the planet Venus after sunset"). Both in this calendar and in Azaria of Julfa's system the five epagomenal days are termed simply *Aveleac*, "redundant, superfluous."